CHAPTER 2
Project Description

This Chapter describes the Scott River Watershed-wide Permitting Program (Program) which for the purposes of this Draft Environmental Impact Report (EIR) is the "Project" analyzed and hereafter referred to as the "Program". The environmental analysis of the Program in the following chapters is based on this description.

2.1 Program Overview

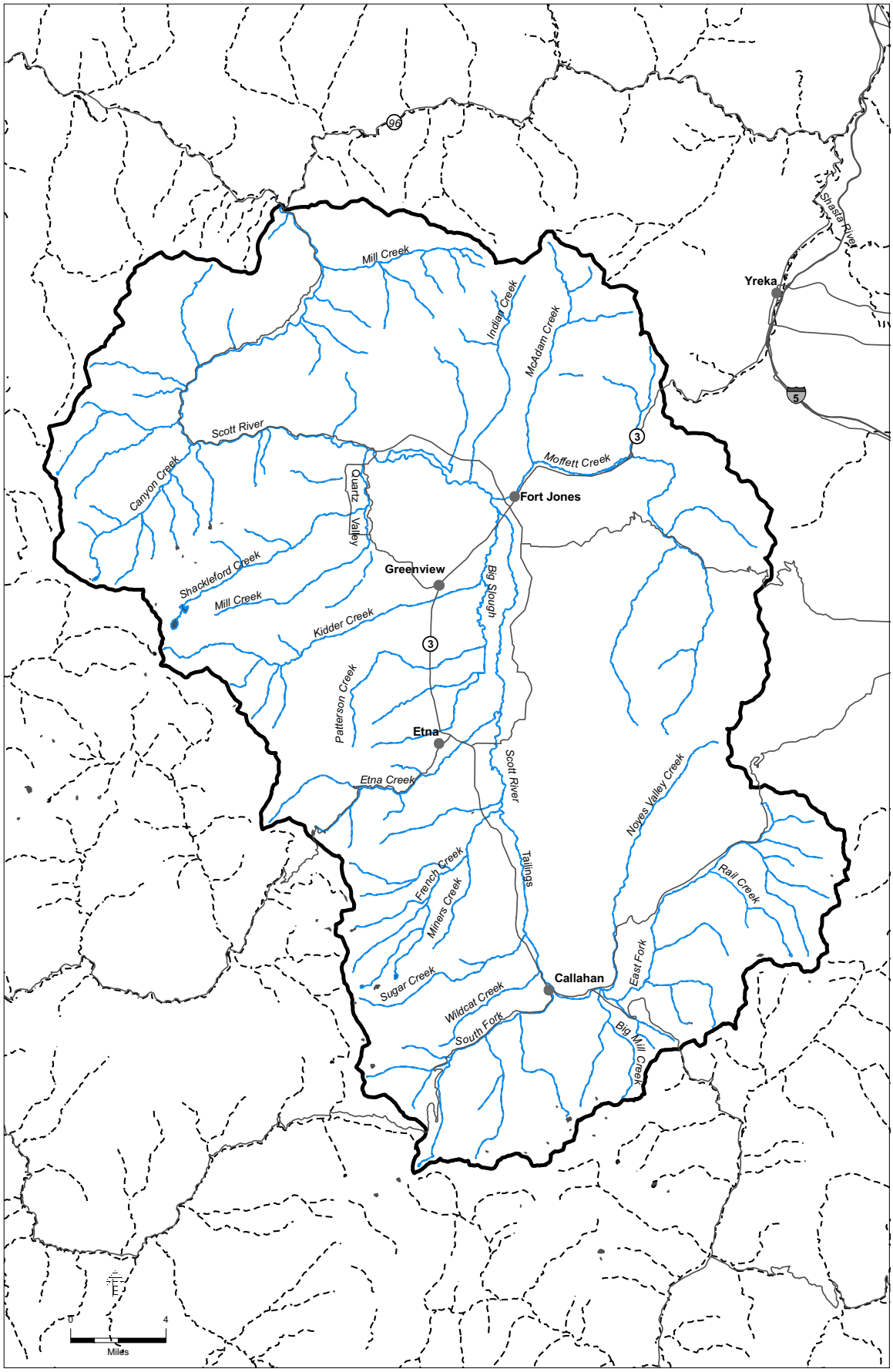
2.1.1 Program Objectives

The Program is intended to facilitate compliance with Fish and Game Code, § 1600 *et seq.* and the California Endangered Species Act (CESA) (Fish and Game Code § 2050 *et seq*.) within the Scott River watershed (Program Area) (see **Figure 2-1**) by the Siskiyou Resource Conservation District (SQRCD) and Agricultural Operators[1] when conducting specified activities the Program covers. The Department of Water Resources (DWR) is also included in the Program because the current watermaster responsible for implementing certain decreed water rights in the Scott River watershed (see Chapter 3.2, Geomorphology, Hydrology and Water Quality) is a DWR employee.[2]

In meeting that objective, the Program will also implement certain stream restoration projects in the Scott River watershed identified in the Fish and Game Commission's (Commission) Recovery Strategy for California Coho Salmon (February 2004) (Coho Recovery Strategy) as key coho salmon (*Oncorhynchus kisutch*) recovery projects. Under the Program, SQRCD will be responsible for implementing those recovery projects, which are among the activities the Program covers. The events culminating in the Commission's adoption of the Coho Recovery Strategy and the Program's relationship to it are described briefly below.

1 The Program defines "Agricultural Operator" as any natural person or any partnership, corporation, limited liability company, trust, or other type of association or any public agency, as defined in CEQA *Guidelines,* § 15379, who diverts water from a stream by means of an active diversion in the Program Area for an agricultural purpose, or is involved in an agricultural operation on property in the Program Area through which or adjacent to which a stream flows. The Program defines "active diversion" as a surface water diversion that has operated at least one out of the last five years.

2 Interested stakeholders are exploring the possibility of developing and operating an alternative watermastering program to replace the current service provided by DWR. Additional information regarding this potential change in watermaster service is included in Chapter 4 under "Changes to the State Watermaster Program."



SOURCE: ESA, 2007

Scott River Watershed-Wide Permitting Program . 206063

Figure 2-1
Program Area

Status of and Recovery Strategy for Coho Salmon

In early 2002, the Salmon and Steelhead Recovery Coalition petitioned the Commission to list coho salmon north of San Francisco as an endangered species under CESA. In response, the California Department of Fish and Game (CDFG) issued a coho salmon status report to the Commission, recommending that coho salmon from San Francisco north to Punta Gorda be listed as endangered, and that coho salmon from Punta Gorda north to the Oregon border be listed as threatened pursuant to CESA (CDFG, 2004). The Commission found that coho salmon warranted listing in accordance with CDFG's recommendations. The Program Area is north of Punta Gorda. As a result of the Commission's finding, coho salmon within the Program Area are listed as a threatened species under CESA,[3] and may not be taken[4] except as authorized by CDFG in accordance with CESA.

In February 2004, the Commission adopted the Coho Recovery Strategy. The Coho Recovery Strategy emphasizes cooperation and collaboration, and recognizes the need for funding, public and private support for restoration actions, and maintaining a balance between regulatory and voluntary efforts to meet the goals of the Coho Recovery Strategy. The Shasta and Scott River watersheds were identified for a pilot program to address coho salmon recovery issues and solutions related to agriculture and agricultural water use in Siskiyou County. In addition to identifying recommendations for the pilot program, the Shasta-Scott Recovery Team identified the need to develop a programmatic implementation framework that works toward the recovery of coho salmon, while providing authorization to take coho salmon incidental to otherwise lawful routine agricultural activities in the Shasta and Scott River watersheds. The avoidance, minimization, and selected mitigation measures included in the proposed incidental take permit (ITP) for the Program, and the sub-permits that will be based on the ITP, are consistent with the recovery tasks identified in the Shasta-Scott Pilot Program in the Recovery Strategy.

2.1.2 Objectives of Program Participants

Siskiyou Resource Conservation District

SQRCD is a non-profit public agency, organized under Division 9 of the Public Resources Code. The mission of SQRCD is to recognize, identify, and meet conservation and restoration needs through voluntary landowner/manager and resource user participation by providing technical, financial, and educational leadership within the bounds of SQRCD. The vision of SQRCD is to meet the natural resource conservation and restoration needs of the Scott River watershed by providing a means for the development of projects from the design phase through project implementation, and, on an as-needed basis, the assessment of projects and programs (SQRCD, 2005).

[3] Coho salmon north of Punta Gorda are within the Southern Oregon-Northern California Coast (SONCC) Coho Evolutionarily Significant Unit (ESU).

[4] "Take" means hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill (Fish and Game Code, § 86).

SQRCD's objectives for the Program are as follows:

- Support landowner activities (both private and public) in order to enhance the conservation and economic stability of Siskiyou County's natural resources;
- Assist Agricultural Operators in completing projects consistent with the tasks identified in the Coho Recovery Strategy and projects identified in the Scott River Watershed Council Strategic Action Plan (Scott River Watershed Council, 2005);
- Assist Agricultural Operators in meeting the requirements of Fish and Game Code, § 1600 *et seq.* and CESA by working with CDFG to develop a Program that streamlines the process to obtain streambed alteration agreements (SAA) under Fish and Game Code, § 1600 *et seq.* and incidental take authorizations under CESA;
- Comply with Fish and Game Code, § 1600 *et seq.* and CESA while performing instream and/or near-stream coho salmon restoration activities;
- Provide incentives for Agricultural Operators in the Scott River watershed to implement coho salmon recovery tasks;
- Increase the viability of coho salmon and other plant, fish, and wildlife resources in the Scott River watershed by improving water quality and riparian habitat, minimizing any adverse effects from agricultural activities, and restoring habitat by providing a clear set of activities and conditions to Agricultural Operators;
- Protect and improve the biological functioning of the Scott River watershed and natural resources while maintaining the economic viability of agriculture; and
- Implement the permit conditions identified in the Program for coho salmon and other stream resources in the Scott River watershed.

California Department of Fish and Game

CDFG is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources, in part by administering and enforcing Fish and Game Code, § 1600 *et seq.* and CESA. In issuing SAAs to SQRCD and Agricultural Operators, an ITP to SQRCD, sub-permits to Agricultural Operators and DWR under the Program, CDFG intends to minimize impacts to biological resources within the Scott River watershed, including coho salmon, from SQRCD's stream restoration projects and agricultural water diversions and activities related to those diversions in the Scott River watershed. CDFG intends also to work with SQRCD to enhance coho salmon habitat in the Scott River watershed through the implementation of key coho salmon recovery tasks. Hence, CDFG's objectives for the Program are as follows:

- Fulfill the commitment to develop a permitting framework within the context of the Shasta-Scott Pilot Program in the Coho Recovery Strategy;
- Work with SQRCD and Agricultural Operators to develop a watershed-wide permitting program that covers agricultural water diversions and other agricultural activities related to those diversions in the Scott River watershed;

- Protect and conserve coho salmon when authorizing providing incidental take authorization for activities in the Scott River watershed that may affect the species;

- Eliminate unauthorized take of coho salmon caused by water diversions in the Scott River watershed and avoid, minimize, and fully mitigate take of coho salmon incidental to diverting water with a valid water right, recovery actions, and other lawful activities;

- Implement selected key coho salmon recovery tasks that are essential to improving habitat conditions for coho salmon in the Scott River watershed; and

- Bring existing agricultural water diverters into compliance with Fish and Game Code, § 1600 *et seq.* and CESA.

Agricultural Operators

The objectives of the Agricultural Operators are as follows:

- Protect and conserve coho salmon and other plant, fish, and wildlife resources while maintaining the economic viability of their agricultural operations in the Scott River watershed; and

- Comply with Fish and Game Code, § 1600 *et seq.* and CESA in conducting the activities the Program covers subject to those statutes.

Department of Water Resources

As mentioned above, the current watermaster responsible for administering and enforcing certain water rights within the Program Area is a DWR employee. The objectives of DWR are as follows:

- Implement the applicable decrees pursuant to applicable provisions in the California Water Code;

- Ensure watermastering activities are in compliance with CESA;

- Verify that watermastered diverters are in compliance with their respective adjudicated water right(s); and

- Work with CDFG to avoid or minimize the stranding[5] of coho salmon when CDFG determines that a permitted water diversion is causing or will cause stranding.

2.1.3 Program Advantages

Participation in the Program has many advantages, including the following:

- The Program implements selected key coho salmon recovery tasks on a watershed-wide level which also serve to meet the full mitigation requirement for incidental take authorization under CESA;

[5] The ITP defines "stranding" as a situation in which coho salmon are in a location with poor aquatic habitat conditions due to a reduction in flow from which they cannot escape.

- SQRCD (through the ITP), Agricultural Operators and DWR (through their sub-permits) will be authorized to take coho salmon if such take occurs incidental to conducting a Covered Activity;

- SQRCD will have one watershed-wide ITP for its coho salmon restoration projects, which will minimize the time and effort needed when compared to obtaining incidental take authorization on a project-by-project basis;

- With the Master List of Terms and Conditions (MLTC) and the ITP, it will take much less time for CDFG to prepare individual SAAs for SQRCD projects subject to Fish and Game Code, § 1602 and SAAs and sub-permits for participating Agricultural Operators;

- Participating Agricultural Operators may receive assistance from SQRCD to prepare their SAA notifications, and will not be required to pay a notification fee to CDFG because SQRCD has paid that fee;

- Any take authorized under CESA must be fully mitigated. Because SQRCD will fully mitigate the take of coho salmon that might occur under the Program by implementing selected key coho salmon recovery projects, participating Agricultural Operators will not be responsible for meeting the full mitigation requirement.

- SQRCD and participating Agricultural Operators will not be responsible for CDFG's cost to prepare the EIR for the Program and any other CEQA-related costs; and

- The Program provides a coordinated approach to implement selected restoration projects critical for recovering coho salmon and bringing existing agricultural water diverters into compliance with Fish and Game Code, § 1600 *et seq.* and CESA.

2.1.4 Program Permitting Structure

Authorization for Covered Activities

As explained below, the activities the Program covers, referred to in the Program as the "Covered Activities," are subject to Fish and Game Code, § 1600 *et seq.* and CESA, Fish and Game Code, § 1600 *et seq.* only, or CESA only. As a result, Agricultural Operators, SQRCD, and DWR must comply with one or both of those statutes before conducting a Covered Activity. The Covered Activities are described in detail below.

To comply with Fish and Game Code, § 1600 *et seq.* outside the Program, each of those entities would need to submit a notification and notification fee and obtain a SAA from CDFG in accordance with Fish and Game Code, § 1602. To be in compliance with CESA outside the Program, the entity would need to apply for and obtain an ITP from CDFG in accordance with Fish and Game Code, § 2081(b) and (c), which is part of CESA. Before CDFG could issue a SAA or an ITP, it would first need to comply with the California Environmental Quality Act (CEQA) (Public Resources Code, § 21000 *et seq.*). In permitting the activities the Program covers, CDFG would be the CEQA lead agency, and as such, would be entitled to recover from the applicant the costs it incurs to comply with CEQA.

Under the Program, CDFG will issue SQRCD and Agricultural Operators individual SAAs for purposes of complying with Fish and Game Code, § 1600 *et seq.* Similar to the standard notification process under Fish and Game Code, § 1602, Agricultural Operators will need to notify CDFG in order to obtain a SAA, but they will not be required to pay a notification fee because, as discussed above, SQRCD has paid that fee. As a condition of participating in the Program, SQRCD and Agricultural Operators must also obtain separate authorization from CDFG to authorize any take of coho salmon that may occur incidental to a Covered Activity within the Program Area for purposes of complying with CESA. DWR will obtain take authorization from CDFG, but will not need to obtain a SAA.

For Agricultural Operators and DWR, their take authorization will be based on the ITP that CDFG will issue to SQRCD. Because they will be based on SQRCD's ITP, they are referred to as "sub-permits" in the Program, but like the SAAs that CDFG issues under the Program, they will be fully enforceable by CDFG as separate, or "stand alone" permits. The structure and conditions of each SAA, ITP, and sub-permit CDFG will issue under the Program are described in greater detail below.

Streambed Alteration Agreements

On April 22, 2005, SQRCD submitted a notification for a watershed wide streambed alteration agreement program to CDFG. At the time, CDFG and SQRCD expected that CDFG would use the notification to prepare one SAA that would apply to SQRCD and Agricultural Operators when conducting certain Covered Activities. By doing so, SQRCD and Agricultural Operators would not need to submit separate notifications to CDFG, and CDFG would not need to prepare a separate SAA for each of those entities. After further discussions, however, it became apparent to CDFG and SQRCD that this approach was not workable, and thereafter they adopted a different approach for the SAA component of the Program.

Under the Program, SQRCD and Agricultural Operators will be required to notify CDFG and in that notification describe the particular Covered Activity or Activities for which they are seeking authorization in order to comply with Fish and Game Code, § 1602. If the entity wants to complete an activity that is not one of the Covered Activities, the entity will need to notify CDFG pursuant to the standard procedure outside the Program. SQRCD may provide assistance to Agricultural Operators in preparing and submitting their notifications to CDFG pursuant to the Memorandum of Understanding (MOU) between CDFG and SQRCD, which is attached as Appendix B. The MOU identifies CDFG's and SQRCD's roles and responsibilities in administering and implementing the SAA (i.e., Fish and Game Code, § 1600 *et seq.*) component of the Program.

After CDFG determines the notification is complete and includes only those activities covered by the Program, it will prepare a SAA for the applicant. The conditions CDFG includes in the SAA will be based on the MLTC that is attached to the MOU. Those conditions are part of the Program. A copy of the proposed MLTC is attached as part of Appendix B. The MLTC includes general conditions that will be included in each SAA regardless of the Covered Activity or

Activities the SAA authorizes and specific conditions from which CDFG will select and include in a SAA based on the Covered Activity or Activities the SAA authorizes.

The specific set of MLTC conditions in the SAA will be those measures necessary to protect fish and wildlife resources the Covered Activity or Activities may substantially adversely affect, as required in Fish and Game Code, § 1603. Under that section *outside* the Program, if an applicant disagrees with any conditions CDFG includes in a draft SAA, the entity may request a meeting with CDFG to resolve the disagreement informally. If that occurs but the applicant and CDFG cannot resolve the disagreement, the entity may request that a three-person arbitration panel be convened to resolve the dispute. By contrast, the conditions CDFG includes in a SAA issued under the Program may not be arbitrated. As a result, in the event an Agricultural Operator disagrees with any of those conditions, and the Agricultural Operator and CDFG cannot resolve the disagreement informally, the Agricultural Operator must either accept the Program SAA regardless of the disagreement, or apply for a SAA outside the Program like any other non-participant. In the latter case, if the Agricultural Operator disagrees with any condition CDFG includes in the draft non-Program SAA, the dispute resolution procedure under Fish and Game Code, § 1603 described above will be available to the Agricultural Operator. However, if an Agricultural Operator elects to obtain a SAA outside the Program, it may no longer participate in the Program, having "opted out."

Also under the Program, in order for a SAA notification to be complete the applicant must include a copy of an executed ITP or sub-permit (described below) issued by CDFG under the Program. Agricultural Operators must also include an agreement signed by the Agricultural Operator that will allow CDFG and SQRCD access to the property where the Covered Activity will occur for purposes of monitoring to determine whether the terms and conditions of the SAA and sub-permit are fulfilled and effective. If the Covered Activity will occur on property not owned by the Agricultural Operator, the access agreement must be signed by the owner of the property.

During the first five years of the Program, the original term of any SAA CDFG issues under the Program will be five years. CDFG may extend the term one time for a period of up to five years, but not beyond the expiration date of the ITP, if the SAA holder requests an extension prior to the SAA's expiration. All SAAs issued or extended after the first five years of the Program will expire on the expiration date of the ITP (i.e., the expiration date of the Program).

Incidental Take Authorization

Under CESA, a person may not take a species that the Commission has accepted as a candidate species or listed as a threatened or endangered species unless the take is incidental to an otherwise lawful activity and the person obtains authorization from CDFG in the form of an ITP. Because coho salmon within the Program Area are listed as threatened under CESA, and CDFG has determined that the Covered Activities could result in take of coho salmon, SQRCD, Agricultural Operators, and DWR will be required to obtain take authorization under the Program. On March 29, 2005, SQRCD submitted an application to CDFG for an ITP pursuant to Fish and

Game Code, § 2081(b) and (c). Thereafter, CDFG and SQRCD worked together to develop a watershed-wide ITP as part of the CESA component of the Program.

As discussed above, for SQRCD, take authorization under the Program will be in the form of an ITP. A copy of the proposed ITP under the Program is attached as Appendix B. For Agricultural Operators and DWR, such authorization will be in the form of "sub-permits" that will be based on SQRCD's ITP, but, like the ITP, each will be fully enforceable by CDFG as a separate permit, as explained in greater detail below. The avoidance, minimization, and mitigation measures included in the ITP and sub-permits are part of the Program.

Under the ITP, SQRCD will be required to comply with the avoidance, minimization, and mitigation measures included in the ITP for its own projects, which, as mentioned above, are key coho salmon recovery projects identified in the Coho Recovery Strategy. The sub-permits will include avoidance and minimization measures the "sub-permittees" (i.e., Agricultural Operators and DWR) must implement, in some cases with SQRCD's assistance. SQRCD will meet the sub-permittees' CESA obligation to fully mitigate for any take of coho salmon that occurs incidental to conducting their Covered Activities by implementing the key coho salmon recovery projects mentioned above. Those projects are described in the ITP as mitigation for any take of coho salmon that occurs incidental to the Covered Activities.

Although SQRCD will be responsible for implementing the coho salmon recovery projects described in the ITP, and therefore for meeting the full mitigation requirement under CESA as it applies to the sub-permittees' Covered Activities, the sub-permittees' take authorization is not solely contingent on their compliance with the avoidance and minimization measures for which they are responsible under their sub-permits. It is also contingent on SQRCD's implementation of the key coho salmon recovery projects that apply to the sub-permittees' Covered Activities. Hence, any failure by SQRCD to implement those projects and any other mitigation measures could result in the suspension or revocation by CDFG not just of SQRCD's take authorization under the Program, but also the sub-permittees' because, as mentioned above, those projects will serve to meet the full mitigation issuance criteria for take authorization under CESA.

SQRCD will also be required to conduct monitoring activities to determine whether or not the terms and conditions of each sub-permit are being fulfilled and are effective. In order to ensure that SQRCD will be able to meet this obligation, the sub-permits will include provisions that allow SQRCD and CDFG to enter a sub-permittee's property and other private property Covered Activities might affect and/or where Covered Activities occur.

The term of the Program ITP will be 10 years and all sub-permits will be written to expire on the expiration date of the Program ITP. As mentioned above, Program SAAs will also expire on or before the ITP expiration date.

Covered Activities

As mentioned above, the Program applies to various Covered Activities, which are described below. The first nine Covered Activities are subject to Fish and Game Code, § 1600 *et seq.*[6] and CESA, and therefore are included in the proposed MLTC and ITP. The remaining five Covered Activities are not subject to Fish and Game Code, § 1600 *et seq.*, and therefore they are not included in the MLTC. However, they are included in the ITP (along with the other nine Covered Activities) because like the other nine Covered Activities, they could result in take of coho salmon in the Program Area. By participating in the Program, SQRCD, through the ITP, and Agricultural Operators and DWR, through their sub-permits, will have authorization pursuant to CESA for take of coho salmon that might occur incidental to conducting a Covered Activity.

Below is a summary of the 14 Covered Activities, followed by a more detailed description of the conditions in the proposed MLTC and ITP which CDFG will include in SAAs and sub-permits. Again, the first nine Covered Activities are included in the proposed MLTC and ITP, and the remaining five are included only in the proposed ITP.

ITP and MLTC Covered Activity 1: Water Diversions. This activity includes only the diversion of surface water by an appropriative or riparian right through a conduit or opening from streams, channels, or sloughs within the Scott River watershed by an Agricultural Operator for agricultural purposes in accordance with a valid water right, including, but not limited to, those specified in one of the following court decrees: Shackleford Creek Decree (1950), French Creek Decree (1958), and the Scott River Decree (1980).

ITP and MLTC Covered Activity 2: Water Diversion Structures. This category includes only the following activities relating to water diversion structures:

a) Ongoing management and/or maintenance of existing flashboard dams, including the placement of boards into concrete abutments across the wetted channel to build head to divert water, and the removal of the boards;

b) Ongoing maintenance, management, and repair of boulder weirs;

c) Installing, operating, maintaining, and removing push-up dams. “Push-up dam” is defined as a temporary diversion structure created by using loaders, backhoes, or excavators to move bedload within the stream channel to form a flow barrier that seasonally diverts the flow of the stream;[7]

d) Installing, operating, maintaining, and removing other temporary diversion structures that are not push-up dams. “Other temporary diversion structure” is defined as any temporary structure (other than a push-up dam) used to divert water seasonally from a stream and is

[6] Fish and Game Code, § 1602 requires an entity to notify CDFG before substantially diverting or obstructing the natural flow of, or substantially changing or using any material from the bed, channel, or bank of, any river, stream, or lake, or depositing or disposing of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

[7] A scoping comment requested that bulldozing be prohibited in streams. The MLTC and ITP will place several restrictions on use of heavy equipment in streams (see below). The impacts of the use of heavy equipment in streams are further analyzed in Chapters 3 and 4 of this Draft EIR.

typically made with hay bales, hand-stacked rocks and cobble, tarps, wood, and/or a combination of these materials placed in the channel without the use of heavy equipment;

e) Installing or placing pumps and sumps and maintaining existing pumps and sumps within or adjacent to the active channel of a stream, which sometimes requires the use of large machinery within or adjacent to the active channel; and

f) Installing headgates and measuring devices that meet CDFG's standards on or in a diversion channel, which usually is done by excavating the site to proper elevation using large machinery, positioning the headgate and measuring device at the appropriate elevation, and installing rock or other "armoring" around the headgate to protect the structure. During installation, the streambank could be affected by the construction of concrete forms and other necessary construction activities.

ITP and MLTC Covered Activity 3: Fish Screens. This category includes only the installation, operation, and maintenance of the types of fish screens described below, provided they meet CDFG's and the National Marine Fisheries Service's (NMFS) criteria for steelhead fry as they exist at the time the screen is installed. Installing a fish screen usually includes site excavation, forming and pouring a concrete foundation and walls, excavation and installation of a fish bypass pipe or channel, and installation of the fish screen structure. Heavy equipment is typically used for excavation of the screen site and bypass. If the fish screen is placed within or near flood prone areas, typically rock or other "armoring" is installed to protect the screen. The average size of the bed, channel, and/or bank area affected by the installation of a bypass pipe or channel ranges from 40 to 100 square feet. Fish screen types include:

a) Self-cleaning screens, including flat plate self-cleaning screens, and other self-cleaning designs, including, but not limited to, rotary drum screens and cone screens, with a variety of cleaning mechanisms, consistent with CDFG and NMFS screening criteria; and

b) Non-self cleaning screens, including tubular, box, and other screen designs consistent with CDFG and NMFS screening criteria.

ITP and MLTC Covered Activity 4: Stream Access and Crossings. This category includes only the moving of livestock and vehicles across flowing streams or intermittent channels and/or the construction of stream crossings at designated locations where potential spawning gravels, incubating eggs, and fry are not present based on repeated site specific surveys. Factors considered when selecting a crossing location include the stream gradient, channel width, and the ability to maintain the existing channel slope. Generally, to construct a crossing in a low gradient stream, a boulder weir is placed on the downstream side of the crossing at or near grade and angular quarry rock is placed in the crossing location; the width of the crossing does not exceed 25 feet; the crossing spans the entire width of the channel; the crossing is "keyed" into the bank on each side; the approaches on both sides do not exceed a slope of 3:1; and bank armoring (usually using quarry rock) is added where needed.

ITP and MLTC Covered Activity 5: Fencing. This activity includes only the installation and maintenance of livestock exclusion fencing to protect the riparian zones, including the construction of fencing along livestock and vehicle crossings and livestock watering lanes.

ITP and MLTC Covered Activity 6: Riparian Restoration and Revegetation. This activity includes only the restoration, including revegetation of riparian areas, consistent with the methods specified in the most current edition of CDFG's *Salmonid Stream Habitat Restoration Manual*, or as otherwise approved in writing by CDFG.[8] Typically, riparian vegetation is planted within or adjacent to the active channel, and often in or near the wetted channel. Plantings include herbaceous perennials, emergent species, native grasses, trees, and shrubs. Planting methods vary by species, site, and size of material planted, ranging from hand planting to using a backhoe or excavator. For riparian trees, planting densities range from 130 to 300 plantings per acre, depending on the restoration goals (e.g., shading, sediment trapping, and bank stabilization), substrate, and hydrology. Trees and cuttings range in size from small rooted plugs to large diameter pole plantings. When installing pole plantings, heavy equipment may be used to excavate to or below water table depth. Maintenance activities include the occasional use of hand tools, portable pumps, pick-up trucks and/or water trucks in or near the bed, bank, or channel, for irrigation, debris removal, and replanting of restoration sites.

ITP and MLTC Covered Activity 7: Instream Structures. This activity includes only the installation, maintenance, and repair of the following instream structures consistent with the methods specified in the most current edition of CDFG's *Salmonid Stream Habitat Restoration Manual:*

a) Structures to protect the bed and banks of streams;

b) Bioengineered habitat structures;

c) Deflectors;

d) Boulder clusters;

e) Boulder weirs for instream habitat or to replace flashboard dams, push up dams, and other temporary diversion structures;

f) Large woody debris; and

g) Spawning gravels to enhance spawning habitat.

ITP and MLTC Covered Activity 8: Stream Gages. This category includes the installation and maintenance of stream gages in the active stream channel, usually using pipe two inches or greater in diameter. Typically, the pipe is secured to the bank by notching it into the bank and by then attaching it to the bedrock, a boulder, or a concrete buttress. Generally, heavy equipment is not needed to install and maintain stream gages.

ITP and MLTC Covered Activity 9: Barrier Removal Projects/Fish Passage Projects. Activities required to perform the projects listed below are included, although CDFG may add others to the list in the future. Each project will provide access to historic fish spawning and rearing habitat.

8 The most current edition of the manual is available at www.dfg.ca.gov/fish/Resources/HabitatManual.asp

a) Modification of the Scott Valley Irrigation District dam to create volitional fish passage upstream and downstream for both juvenile and adult salmonids;

b) Installation and maintenance of two or more boulder weirs and improved head works at Farmers Ditch; and

c) The following barrier removal and fish passage projects on tributaries to the East Fork of the Scott River:

- Rail Creek fish barrier removal project;
- Grouse Creek low flow fish passage project;
- Big Mill Creek fish barrier and channel restoration projects; and
- Shackleford Creek confluence gravel aggradation maintenance.

ITP Covered Activity 10: Grazing Livestock. This activity includes the grazing of livestock adjacent to the channel or within the bed, bank, or channel of the Scott River or its tributaries in accordance with a grazing management plan approved by CDFG. The grazing plan will address the timing, duration, and intensity of livestock grazing within the riparian zone and will explain how the proposed management plan will result in improved riparian function and enhanced aquatic habitat.[9]

ITP Covered Activity 11: Water Management. This activity includes water management, water monitoring, and watermastering (either state or private) activities, including the operation of headgates in conjunction with measuring devices to assure that each diversion is operated in compliance with its associated water right or adjudicated volume.

ITP Covered Activity 12: Permit Implementation. This includes other activities associated with the implementation of avoidance, minimization, and mitigation measures required by the ITP or a SAA.

ITP Covered Activity 13: Monitoring. This includes activities associated with the determination of whether or not the required terms and conditions of the ITP, each sub-permit, or a SAA are being fulfilled and are effective.

ITP Covered Activity 14: Research. This includes activities associated with conducting studies to improve the scientific understanding of salmonid distribution, natural history, and population dynamics, etc. in the Scott River watershed.

[9] A scoping comment requested that grazing be prohibited in streams. Grazing in streams and riparian corridors is a historic, ongoing activity in the Scott River watershed that along with its impacts is part of the baseline. Although the Program will not prohibit such grazing, it will reduce its impacts by excluding livestock from some riparian zones by installing and maintaining fencing (see ITP and MLTC Covered Activity 5). Also, as stated above, under ITP Covered Activity 10, any grazing of livestock adjacent to the channel or within the bed, bank, or channel of the Scott River or its tributaries may only occur in accordance with a grazing management plan that will result in improved riparian function and enhanced aquatic habitat. The impacts of grazing in streams and riparian corridors are further analyzed in Chapters 3 and 4 of this Draft EIR.

2.2 Conditions in the Proposed MLTC

The MLTC contains 114 separate conditions (see Appendix B for full language). These are divided into general and specific conditions.

2.2.1 General Conditions in the MLTC

The proposed MLTC contains 19 general conditions, primarily administrative, that will be included in all SAAs issued under the Program. General conditions are organized in the MLTC under the following sections: 1) "Administrative"; 2) "Amendments"; 3) "Suspension and Revocation"; 4) "Liability"; 5) "Access"; and 6) "Other Laws." The "Other Laws" section in the MLTC requires the holder of a SAA issued by CDFG under the Program to comply with all local, state, and federal laws before commencing a Covered Activity, which includes CESA.

2.2.2 Specific Conditions in the MLTC

The remaining conditions in the proposed MLTC address the potential physical effects of the nine Covered Activities the MLTC includes. As mentioned above, the specific conditions CDFG includes in a SAA will depend on the particular Covered Activity or Activities described in the notification that the SAA will be authorizing. The specific conditions are intended to protect existing fish and wildlife resources the Covered Activity or Activities could substantially adversely affect.

The specific conditions are organized in the MLTC under the following sections: 1) "Water Diversions"; 2) "Riparian Restoration and Revegetation"; 3) "Instream Structures"; 4) "Habitat and Species Protection"; 5) "Use of Vehicles in Wetted Portions of Streams"; 6) "Pollution Control"; 7) "Erosion and Sediment Control"; 8) "Bank Stabilization"; 9) "Dewatering"; 10) "Ground-Disturbing Activities"; and 11) "Monitoring."

Each holder of a SAA issued by CDFG under the Program will be responsible for complying with the general conditions and each specific condition that CDFG includes in the SAA.

2.3 Conditions in the Proposed ITP

The proposed ITP includes measures to avoid, minimize, and fully mitigate the take of coho salmon that might occur incidental to a Covered Activity, as Fish and Game Code, § 2081(b) and (c) require. As mentioned above, SQRCD and Agricultural Operators will be responsible for implementing the avoidance and minimization measures in the ITP and sub-permits, respectively, for their own Covered Activities. However, SQRCD, rather than Agricultural Operators, will be responsible for implementing the mitigation measures in the ITP. CDFG may also include measures in a sub-permit that are not included in the proposed ITP if it determines that the additional measures are necessary to avoid and minimize take of coho salmon incidental to the activity or activities the sub-permit covers.

2.3.1 General Conditions in the ITP

The proposed ITP contains the general conditions described below that will apply to SQRCD and, through their sub-permits, Agricultural Operators and DWR.

ITP General Condition a: This condition requires SQRCD to conduct an education program for all sub-permittees within 60 days of the close of each sub-permittee enrollment period. After the ITP takes effect, a 60-day sub-permittee enrollment period will begin. Any Agricultural Operator who wants to enroll in the Program after the initial enrollment period closes may do so from January 1 to February 28 each year. The education program will consist of a presentation by a person or persons knowledgeable about the biology of coho salmon, the terms of the ITP, and CESA. The education program will include a discussion of the biology of coho salmon, their habitat needs, their threatened status under CESA, and the avoidance, minimization, and mitigation measures required by the ITP.

ITP General Condition b: This condition requires SQRCD and any sub-permittee to stop, contain, and clean-up any fuel, lubricants, or other hazardous materials that leak or spill while engaged in a Covered Activity; to notify CDFG immediately of any leak or spill of hazardous materials into a stream or in a place where it can pass into a stream; and to store and handle hazardous materials at least 150 feet away from the edge of mean high water elevation of any stream, unless adequate containment for an existing facility is provided and approved by CDFG.

ITP General Condition c: This condition requires sub-permittees to provide non-enforcement CDFG representatives written consent to access the sub-permittee's property for the specific purpose of verifying compliance with, or the effectiveness of, required avoidance, minimization, and mitigation measures and/or for the purpose of fish population monitoring, provided CDFG notifies the sub-permittee at least 48 hours in advance.

ITP General Condition d: Under this condition, each sub-permittee will be solely responsible for any costs the sub-permittee incurs to implement any avoidance or minimization measures required under their sub-permit and SQRCD shall be solely responsible for any costs it incurs to implement any mitigation and monitoring measures required under the ITP.

ITP General Condition e: This condition specifies that SQRCD's mitigation obligations under the ITP will end only when SQRCD has implemented the avoidance, minimization, and mitigation measures identified in the ITP, for which it is responsible, that are necessary to fully mitigate the authorized take of coho salmon that occurred while the ITP and all sub-permits were in effect and the Final Report (described below) is deemed complete.

ITP General Condition f: This condition requires SQRCD to submit to CDFG an irrevocable letter of credit or another form of financial security other than a bond (Security) approved by CDFG's Office of the General Counsel in the principal sum of $100,000. The Security must allow CDFG to draw on the principal sum if CDFG, in its sole discretion, determines that SQRCD or a sub-permittee has failed to comply with any of the avoidance, minimization, mitigation, or monitoring measures for which SQRCD or sub-permittee is responsible.

If CDFG draws on the Security, it must use the amount drawn to implement measures SQRCD or a sub-permittee has failed to implement, or, if CDFG determines the measure(s) can no longer be successfully implemented or will not be effective, some other measures within the Program Area that CDFG determines will more effectively avoid, minimize, or mitigate impacts on coho salmon caused by a Covered Activity.

ITP General Condition g: This condition allows instream work on structural restoration projects by SQRCD or a sub-permittee to occur only from July 1 to October 31 when coho salmon are least likely to be present and/or when water temperatures exceed the tolerance levels of coho salmon. If the work needs to be completed before July 1 or after October 31, SQRCD or the sub-permittee may request a variance from CDFG in writing. If CDFG grants the request, the work must be completed in accordance with the avoidance, minimization, mitigation, and monitoring measures CDFG might specify in granting the variance.

ITP General Condition h: Under this condition, instream equipment operations by SQRCD or a sub-permittee will occur when coho salmon are least likely to be present and/or when water temperatures exceed the tolerance levels of coho salmon, which is generally from July 1 to October 31, except as otherwise provided in the Best Management Practices (BMPs) adopted pursuant to the ITP. SQRCD must contact CDFG to verify when such operations may begin each year prior to their commencement. The condition also specifies that to the extent possible, all such work must be done from outside the channel. All refueling of machinery must be done no less than 150 feet away from the edge of the mean high water elevation of any stream. Access without specific CDFG approval is allowed to correct emergency problems demanding immediate action (as defined in Public Resources Code section 21060.3).

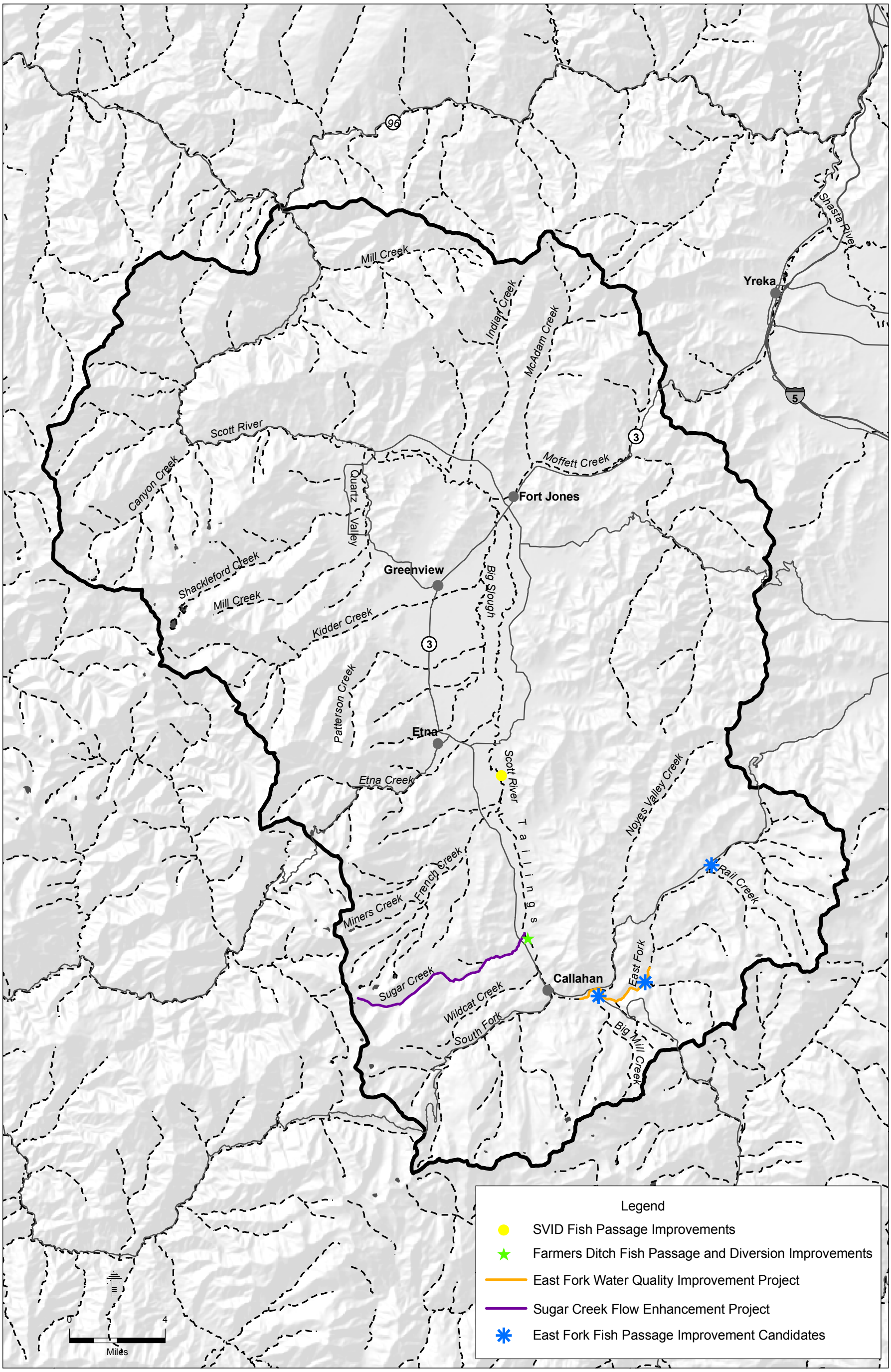
ITP General Condition i: This condition requires SQRCD and each sub-permittee to comply with Fish and Game Code, § 1600 *et seq.*, if applicable.

2.3.2 Additional Obligations in the ITP to Avoid and Minimize Take of Coho Salmon

In addition to general conditions described above, the proposed ITP includes the specific obligations described below that SQRCD and/or each sub-permittee, except DWR, must implement in order to avoid and minimize the incidental take of coho salmon in the Program Area when engaged in a Covered Activity (see **Figure 2-2**). DWR's sub-permit obligations are discussed in section 2.3.6.

ITP Additional Avoidance and Minimization Obligation A: Water Management. This includes compliance with water rights, verification of the quantity of water diverted, and a requirement to install headgates and water measuring devices on water diversion structures.

ITP Additional Avoidance and Minimization Obligation B: Fish Screens. This includes the requirement to fit diversions with fish screens that meet CDFG and NMFS screening criteria for steelhead fry, provide a bypass channel or device to enable fish to return to the main stream channel, cleaning and maintenance requirements, and high flow provisions.



Scott River Watershed-Wide Permitting Program . 206063

SOURCE: ESA, 2007

Figure 2-2
Location of Mitigation Projects
Proposed as Part of the Program

ITP Additional Avoidance and Minimization Obligation C: Fish Passage Improvements. SQRCD and each sub-permittee with fish passage problems will implement specified requirements in an effort to eliminate all fish barriers. This obligation requires SQRCD to create a priority list of diversions that impede fish passage, and to submit this list to CDFG for review and approval within one year of the effective date of the ITP. The priority list will be used to focus efforts to remove fish barriers in the most critical areas early in the Program. SQRCD must also coordinate with CDFG to develop and conduct a fish passage workshop for those who own, operate, or use diversions that are likely to obstruct fish passage. The workshop will be held within one year of the effective date of the ITP.

In addition to the above requirements, each sub-permittee will be required to provide permanent volitional fish passage for both adult and juvenile coho salmon, both upstream and downstream, at each of their diversions within five years of the effective date of their sub-permit. Where such passage is determined by CDFG to be inadequate, the sub-permittee will be required to submit to CDFG plans to improve passage to CDFG's review and approval. As a part of the review, CDFG will make a determination regarding whether or not engineered drawings are necessary for the project. If engineered drawings are deemed necessary, they will be submitted to CDFG for review and approval prior to implementing the project. Annual reports that document progress to provide adequate fish passage at these diversions will be provided to SQRCD by the owner of the diversion which SQRCD will submit to CDFG with the SQRCD's Annual Report that SQRCD will be required to submit under the ITP.

ITP Additional Avoidance and Minimization Obligation D: Livestock and Vehicle Crossings. The ITP contains provisions to reduce the potential for take of coho salmon from livestock and vehicles crossing streams. Those obligations include: a prohibition on livestock and vehicles crossing flowing streams between October 31 and July 1, except in designated, CDFG-approved crossing lanes, and criteria for site selection and crossing design, construction, periodic inspection, and maintenance.

ITP Additional Avoidance and Minimization Obligation E: Riparian Fencing/Grazing of Livestock in Riparian Areas. The ITP includes several provisions for riparian fencing and restriction of livestock from riparian areas intended to improve the condition of the riparian vegetation for the benefit of coho salmon. These include a requirement that, within one year of the effective date of the ITP, SQRCD develop a Riparian Fencing Plan for CDFG review and approval that prioritizes areas for riparian protection; a requirement for sub-permittees to install, maintain, and repair exclusion fencing in accordance with the Riparian Fencing Plan; a requirement for sub-permittees to allow the planting of riparian revegetation and installation of exclusion fencing along designated stream reaches located on their property, and restrictions on sub-permittees' grazing of livestock within a fenced riparian area.

ITP Additional Avoidance and Minimization Obligation F: Push-Up Dams. The ITP requires SQRCD, within six months of the effective date of the ITP, to consult with CDFG to prepare and adopt a set of BMPs that govern the construction, operation, and removal of push-up dams. The BMPs will specify the conditions under which such dams may be constructed, including work

windows and the type of equipment that may be used for construction and removal; provisions to allow fish passage; and measures to minimize stream sedimentation and other water quality impacts. Once they are approved by CDFG, sub-permittees who use push-up dams will implement the BMPs to minimize dam-related impacts. Within five years of the effective date of their sub-permit, sub-permittees will replace their push-up dams with vortex weirs or some other CDFG approved diversion method, unless CDFG determines that an alternative method is not feasible.

ITP Additional Avoidance and Minimization Obligation G: Other Temporary Diversion Structures. The ITP requires SQRCD to consult with CDFG to prepare and adopt a set of BMPs that govern the construction, operation, and removal of temporary diversion structures other than push-up dams. The BMPs will specify the conditions under which these other temporary diversion structures may be used, including work windows and a description of the construction methods which may be used to construct and remove them without the use of heavy equipment; provisions to allow fish passage; and measures to minimize stream sedimentation and address other water quality issues.

Within two years of the effective date of the ITP, any sub-permittee who uses an "Other Temporary Diversion Structure" will request in writing that SQRCD and CDFG assess the structure. If CDFG determines the structure will not comply with the Fish and Game Code, even after implementation of the BMPs, the sub-permittee will replace the structures within five years of the determination with a vortex weir or some other structure approved by CDFG.

ITP Additional Avoidance and Minimization Obligation H: Bioengineered Bank Stabilization. In areas where the slopes of streambanks on a sub-permittee's property have become unstable due to actions by the sub-permittee and re-stabilization measures are necessary to re-establish vegetation, the sub-permittee shall implement bioengineered bank stabilization techniques[10] to prevent additional erosion from occurring. The techniques to be implemented must be consistent with methods identified in the most recent version of CDFG's *Salmonid Stream Habitat Restoration Manual*, and must be approved by CDFG on a site-by-site basis.

ITP Additional Avoidance and Minimization Obligation I: Irrigation Tailwater Reduction and/or Capture. Under the ITP, SQRCD will assist sub-permittees in the design and implementation of tailwater reduction and capture systems. SQRCD will inventory and prioritize tailwater sources for remediation and submit the priority list of sites to CDFG for its review and approval within two years of the effective date of the ITP. Tailwater capture systems will be consistent with the standards contained in U.S. Department of Agriculture's Natural Resources Conservation Service guidelines. Any sub-permittee whose property is on the priority list must have tailwater reduction and capture systems in place by the expiration of their sub-permit.

[10] Bioengineered bank stabilization structures use a combination of living plants, such as willow or other riparian trees, shrubs, and inert materials such as gravel and rip-rap. Bioengineered structures tend to provide more aquatic and riparian habitat attributes than conventional bank stabilization structures.

ITP Additional Avoidance and Minimization Obligation J: Maintain Connectivity of Tributaries in the Mainstem. A break in connectivity between French and Lower Shackleford Creeks and the Scott River prior to June 15 can impede movement of juvenile coho salmon. In order to address that problem, if such a break is about to occur before June 15, each sub-permittee will be required to refrain from diverting a portion of the water the sub-permittee otherwise would be allowed to divert.

ITP Additional Avoidance and Minimization Obligations: Stranding. The ITP includes additional avoidance and minimization obligations under Article XIII.E.2.a.iv, Article XVII.C, and Article XVIII to address any stranding of coho salmon that might occur. The ITP defines "stranding" as a situation in which coho salmon are in a location with poor aquatic habitat conditions, due to a reduction in flow, from which they cannot escape.

ITP Article XIII.E.2.a.iv requires SQRCD to develop and implement a Contingency Plan for Dry and Critically-Dry Water Years (Contingency Plan). Among other elements, the Contingency Plan will include a strategy to avoid stranding and a Diversion Ramp-up Management Plan (Management Plan). The purpose of the Management Plan is to coordinate and monitor irrigation so as to minimize rapid reductions in instream flows and the possible stranding of coho salmon.

ITP Article XVII.C requires DWR to meet with CDFG on a weekly basis during the diversion season and inform CDFG of any points of diversion in the watermastered areas where stranding is probable. CDFG will then work with SQRCD and sub-permittees to correct or avoid such stranding by some means other than reducing or ceasing the diversion and/or changing the timing or manner of the diversion in accordance with ITP Article XVIII (see below). As a last resort, CDFG will instruct DWR to reduce or cease the diversion and/or change the timing or manner of the diversion and take any other measures within DWR's control that CDFG determines are necessary to correct or avoid stranding, which DWR will implement immediately.

Under ITP Article XVIII, if CDFG determines that a diversion covered by a sub-permit is causing or will cause the stranding of coho salmon, CDFG will take the steps in the order below to avoid or minimize such stranding:

a) CDFG will determine whether or not the sub-permittee is in compliance with the sub-permit.

b) If the sub-permittee is not in compliance with the sub-permit, CDFG will contact the sub-permittee to determine why they are not in compliance and take appropriate action.

c) In either case, CDFG will consult with SQRCD and the sub-permittee to determine whether there are any measures SQRCD and/or sub-permittee can take to avoid or minimize stranding.

d) If reducing or ceasing the diversion and/or changing the timing or manner of the diversion will avoid or minimize stranding, and that is the only available measure to avoid or minimize stranding, CDFG will work with SQRCD and the sub-permittee and, if applicable, DWR, to take such action.

2.3.3 Mitigation Obligations of SQRCD: Flow Enhancement, Habitat Improvement, and Fish Passage

The ITP contains mitigation obligations that SQRCD will be required to meet to compensate for take of coho salmon that may occur incidental to a Covered Activity, whether caused by SQRCD or an Agricultural Operator to whom CDFG has issued a sub-permit. The mitigation obligations also require the involvement of sub-permittees, and in some instances, other entities. The mitigation obligations are summarized below.

Flow Enhancement Mitigation Obligations

To mitigate potential take of coho salmon from the diversion of water in streams where coho salmon occur, SQRCD will implement the programs described below to provide for or support the instream needs of coho salmon at specific life-cycle stages.

Flow Enhancement Mitigation 1: Development and Implementation of Scott River Water Trust. Immediately upon the effective date of the ITP, SQRCD will begin developing a locally-based Scott River Water Trust (Water Trust). The Water Trust will lease or purchase water from sub-permittees for instream beneficial use in accordance with guidelines prepared by SQRCD and approved by CDFG.

Flow Enhancement Mitigation 2: Improve Baseline Instream Flows Via Water Efficiency Improvements. The ITP will require SQRCD to improve baseline instream flows and/or water quality within critical reaches of the Scott River and its tributaries and at critical life stages of coho salmon by installing water efficiency improvement projects and/or water management improvement projects on sub-permittees' properties or by changing or adding points of diversion to keep flows instream to points of use. Within one year of the effective date of the ITP, SQRCD will provide to CDFG, for its review and approval, a list of priority stream reaches for flow enhancement and/or water quality based on coho salmon life stage need, and will work with sub-permittees to address their overall irrigation efficiency and delivery considerations to accomplish aquatic habitat improvement. Generally, a California Water Code, §1707 water transfer/dedication for instream benefits will be pursued where the net water savings are consistent with the State Water Resources Control Board policy.[11]

Flow Enhancement Mitigation 3: Sugar Creek Flow Enhancement. Sugar Creek provides some of the coldest summer water temperatures in the Scott River watershed and possesses high-quality, over-summering habitat. Flows from 1.2 to 6.0 cubic feet per second (cfs) used for irrigation purposes will be dedicated to instream use within one year of the effective date of the ITP.

[11] Water Code, § 1707 authorizes the State Water Resources Control Board to approve a petition to change an existing water right specifically for the purpose of preserving or enhancing wetlands, fish and wildlife, or recreation in or on the water. Such a change requires that the original use under the existing right cease or be reduced in the amount of the change.

Flow Enhancement Mitigation 4: Develop and implement a Contingency Plan for Dry and Critically-Dry Water Years. Under the ITP, SQRCD would be required to submit a detailed Contingency Plan for Dry and Critically-Dry Water Years to CDFG for review and approval within three years of the effective date of the ITP. The Contingency Plan will identify the criteria to determine when a year is dry or critically-dry and describe a process by which SQRCD will coordinate with sub-permittees to augment stream flows. SQRCD will determine whether the water year will be dry or critically-dry by April 1, based on the criteria in the Contingency Plan. Measures contained within the Contingency Plan will incorporate the best available information on both surface and groundwater (where relevant) to minimize the likelihood that critical coldwater flows to the Scott River and its tributaries are impaired. In addition, the Contingency Plan will identify data gaps and will include a strategy to avoid stranding.

One component of the Contingency Plan shall be the Diversion Ramp-Up Management Plan (Management Plan). During the irrigation season, significant changes in stream flow occur when agricultural water users cease or begin diverting water at the same time. A rapid decrease in flow can result in the stranding of fish in shallow pools and side channels below diversions, as well as a loss of critical rearing habitat. To address this problem, SQRCD, in consultation with CDFG and DWR, will be required to develop and implement a Management Plan to coordinate and monitor irrigation so as to minimize rapid reductions in instream flows and the possible stranding of coho salmon. SQRCD will submit the Management Plan to CDFG for its review and approval within one year from the effective date of the ITP. SQRCD and the sub-permittees would begin implementing the Management Plan immediately upon CDFG's approval.

Flow Enhancement Mitigation 5: Install Alternative Stock Water Systems. Water is diverted for stock watering purposes and/or off-stream storage in October, November, and December each year after diversions for irrigation cease. In those years when the seasonal rains arrive late, such stock water diversions can limit the ability of returning adult coho salmon to reach spawning areas. To address that problem, SQRCD will identify priority areas where additional instream flows in the fall will contribute significantly to adult coho migration. A priority plan will be established by SQRCD that identifies where alternative stock watering systems may be beneficial for coho salmon and the priority list will be submitted to CDFG for its review and approval within one year from the effective date of the ITP.

During the term of the ITP, SQRCD will install an average of two alternative stock watering systems per year. The watering systems will use groundwater, off stream storage, or other appropriate methods rather than surface water. Higher stream flows will facilitate adult coho salmon access to spawning areas. For purposes of the ITP, an alternative stock water system means the wells, pumps, water lines, watering troughs, and other physical components used to provide groundwater to livestock. Sub-permittees will be reimbursed from the Water Trust or equivalent means if funds are available for the cost per day of running the alternative stock water system and no sub-permittee will be required to forego exercising a right to divert for stock water purposes for more than four consecutive years.

Flow Enhancement Mitigation 6: East Fork Water Quality and Quantity Improvement Project. The ITP will require SQRCD to undertake the East Fork Water Quality and Quantity Improvement Project. This project will provide instream flows and reduce historical use up to five cfs throughout the irrigation season in the East Fork Scott River. In addition, fish passage will be improved by installing a vortex boulder weir at the head of China Cove Ditch to eliminate the existing gravel dam. That project will be completed within three years of the effective date of the ITP.

Habitat Improvement Mitigation Obligations

The ITP would obligate SQRCD to undertake various habitat improvement projects to mitigate the impacts to coho salmon habitat caused by the Covered Activities.

Habitat Improvement Mitigation 1: Spawning Gravel Enhancement. Under the ITP, SQRCD will work with CDFG to develop and implement a Spawning Gravel Enhancement Plan (Gravel Enhancement Plan). The Gravel Enhancement Plan will identify areas where gravel for coho salmon spawning could be placed effectively and where gravel can be recruited, and prioritize immediately-needed gravel enhancement projects throughout the Program Area. SQRCD will submit the Gravel Enhancement Plan to CDFG for review and approval within two years from the effective date of the ITP.

SQRCD will design and install constrictors and/or other spawning area enhancement structures at a total of five priority stream reaches where spawning gravels are not plentiful, if deemed necessary in the Gravel Enhancement Plan. SQRCD will complete all gravel enhancement projects prior to the expiration of the ITP.

Habitat Improvement Mitigation 2: Instream Habitat Improvement Structures. SQRCD, in consultation with CDFG and sub-permittees, will identify locations in the Program Area where instream habitat improvement structures would benefit coho salmon, and list those locations in order of priority. SQRCD will submit the priority list to CDFG for its review and approval within one year from the effective date of the ITP. SQRCD will install at least 20 instream habitat improvement structures at sites identified on the priority list.

Habitat Improvement Mitigation 3: Riparian Planting. The ITP will require SQRCD and the sub-permittees to prepare and submit to CDFG for its review and approval a priority list of areas currently being used by coho salmon for spawning and rearing. The list must be submitted within two years of the effective date of the ITP. Before the ITP expires, SQRCD will plant 20 acres of riparian habitat in the areas included on the priority list to improve instream cover and shade canopy, improve channel stabilization, and trap or hold sediment. Ten of those acres will be planted within five years of the effective date of the ITP.

Barrier Removal and Fish Passage Mitigation Obligations

Significant barriers exist in the Scott River and its tributaries that prevent fish passage or limit access to historic spawning and rearing areas. Some fish migration barriers have been in existence for many years. Because removal of fish passage barriers can have short-term negative effects,

possibly including take of coho salmon, these mitigation measures are also a Covered Activity (see ITP and MLTC Covered Activity 9 above). The ITP requires SQRCD to continue to work toward eliminating the fish passage barriers identified below.

Barrier Removal and Fish Passage Mitigation Obligation 1: Fish Passage at the Scott Valley Irrigation District Diversion Head. The Scott Valley Irrigation District (SVID) diversion structure on the Scott River is the largest diversion in the Program Area. The diversion structure allows for adult passage when minimum flow volumes reach 12 to15 cfs. It does not provide for upstream passage of juveniles. In order to provide passage for adult and juvenile coho salmon, SQRCD will work with SVID to provide volitional fish passage to both adult and juvenile coho salmon at Young's Dam within seven years of the effective date of the ITP.

Barrier Removal and Fish Passage Mitigation Obligation 2: Installation of two or more Boulder Weirs and Improved Head Works at Farmers Ditch. Farmers Ditch is the second largest diversion in the Scott River watershed. A gravel dam is currently used to divert water from the upper portion of the Scott River into the ditch. The annual construction of the dam disturbs the channel, creates turbidity, and presents a fish passage barrier. SQRCD will replace the gravel push-up dam with two or more boulder vortex weirs. The diversion take-out will be relocated upstream and the initial section of the diversion will be piped to reduce ditch loss. The weir will provide for fish passage whenever flow is present. SQRCD will be responsible for installing the boulder weirs within one year of the effective date of the ITP.

Barrier Removal and Fish Passage Mitigation Obligation 3: Development of Fish Passage – Rail Creek tributary to the East Fork of the Scott River. The East Fork of the Scott River is an important coho salmon tributary. While the summer water temperatures of the East Fork are very warm, the tributaries to the East Fork are cold, and historically provided over-summering habitat for coho salmon. Currently, an earthen dam in Rail Creek prevents access by anadromous fish to approximately one mile of spawning and summer rearing habitat. The impact of limited access to cold water tributaries of the East Fork is considered significant. In order to provide year-round fish passage to upper Rail Creek, SQRCD shall engineer and construct an appropriate fish passage facility at the earthen dam within seven years of the effective date of the ITP.

2.3.4 Monitoring and Adaptive Management Program

The proposed ITP requires SQRCD to establish a monitoring program to determine whether the sub-permittees are fulfilling all sub-permit terms and conditions, the implementation of avoidance, minimization, and mitigation measures identified in the ITP and any sub-permit, and the effectiveness of those measures in improving conditions for coho salmon.

Under the terms of the ITP, SQRCD will be responsible for instituting a comprehensive monitoring program. Under this Program, SQRCD will be responsible for confirming and monitoring the implementation of the mitigation measures for which they are responsible. They will also be responsible for monitoring to determine whether the sub-permittee is fulfilling the terms and conditions of their sub-permits. The monitoring program will include a means to:
1) confirm and monitor the implementation of the minimization and avoidance measures for which

the sub-permittees are responsible; and 2) identify sub-permittees who are not fulfilling the terms and conditions of their sub-permits. SQRCD will be required to notify CDFG immediately of sub-permittees who are not fulfilling a term or condition of their sub-permit.

SQRCD's monitoring program will also be used to determine the effectiveness of the avoidance, minimization, and mitigation measures identified in the ITP and sub-permits, and the extent to which the objectives of those measures are being or have been met. The results of the effectiveness monitoring will be used as a basis for an adaptive management program to refine future avoidance, minimization, and mitigation measures.

2.3.5 SQRCD Reporting Requirements

The ITP includes several reporting requirements that apply to SQRCD. This includes an Annual Report for each year that the ITP is in effect, a Five-Year Report, and a Final Report.

Each Annual Report will include the following information: 1) a general description of the status of the Program, including a description of all avoidance, minimization, and mitigation measures that were implemented during the previous year; 2) a copy of an implementation database with notes showing the current implementation status of each avoidance, minimization, and mitigation measure; 3) the results of all monitoring conducted to determine whether the terms and conditions of the ITP are being met and their effectiveness; and 4) all monitoring data.

Five years after the effective date of the ITP, SQRCD will be required to conduct a comprehensive review of the Program and submit its findings in the form of a Five-Year Report to CDFG. As part of its review, SQRCD will evaluate coho salmon recovery task implementation and community participation. The Five-Year Report will include an analysis of the Program beginning on the effective date of the ITP, as well as the activities that have been implemented since that time. The Five-Year Report will include recommended adaptive management actions to improve operations.

No later than six months after the ITP expires (or is relinquished, revoked, or terminated), SQRCD will be required to submit a Final Report to CDFG. The Final Report will include: 1) a copy of the implementation database with notes showing when each avoidance, minimization, and mitigation measure was implemented; 2) all available information about the incidental take of coho salmon the ITP covers; 3) information about the impacts the Covered Activities have had on coho salmon, notwithstanding the implementation of the avoidance, minimization, and mitigation measures; 4) the beginning and ending dates of all construction activities the ITP or any sub-permit covers; 5) an assessment of the effectiveness of the ITP's and sub-permits' terms and conditions to avoid, minimize, and mitigate impacts on coho salmon; 6) recommendations on how those terms and conditions might be changed to more effectively avoid, minimize, and mitigate such impacts in the future; and 7) any other pertinent information.

2.3.6 Department of Water Resources Obligations under Sub-Permit

The ITP includes special provisions for DWR, under the assumption that the current watermaster responsible for administering and enforcing certain water rights within the Program Area, who is a DWR employee, will be a sub-permittee.[12] As such, DWR would be responsible for complying with the following terms and conditions:

1. To assist with the implementation and compliance monitoring of the ITP and sub-permits, DWR will provide to CDFG water use data for all diversions with watermaster service in the Program Area, including, but not limited to, the name of the diverter, the location of the diversion, the quantity of water that may lawfully be diverted and used, the dates the watermaster visits each diversion, and the estimated or measured quantity of water diverted by the watermaster on each visit. DWR will provide the data in the form of a database on a monthly basis from April to November each year by the second week of each month following data collection.

2. DWR will implement the Scott River Decree (Wildcat, Sniktaw, and Oro Fino Creeks watersheds only), French Creek Decree, and Shackleford Creek Decree and any other applicable court decrees pursuant to provisions of the Water Code in the adjudicated portions of the Scott River watershed, unless CDFG instructs DWR otherwise as described below. As part of that responsibility, the DWR watermaster will verify that each sub-permittee is in compliance with their respective water right(s). The watermaster will create a database of all diversions visited on a monthly basis to verify compliance with water rights and will provide these data monthly to CDFG.

3. DWR will meet with CDFG in person or by telephone on a weekly basis during the diversion season in order to inform CDFG of any points of diversion in the watermastered areas where stranding is probable. CDFG will make a determination regarding whether or not any diversion is causing or will cause the stranding of coho salmon. For the purpose of this ITP, "stranding" is defined as a situation in which coho salmon are in a location with poor aquatic habitat conditions, due to a reduction in flow, from which they cannot escape. CDFG will instruct DWR to reduce or cease the diversion and/or change the timing or manner of the diversion and take any other measures within DWR's control that CDFG determines are necessary to correct or avoid stranding and DWR will implement those measures immediately. However, before instructing DWR as described above, CDFG will make every effort to work with SQRCD and the sub-permittee to correct or avoid such take by some means other than reducing or ceasing the diversion and/or changing the timing or manner of the diversion.

As mentioned in footnote 2 above and explained in Chapter 4, DWR's watermaster responsibilities may be transferred to a newly established watermaster district. If that were to occur, CDFG would terminate DWR's sub-permit, in which case all of DWR's responsibilities under the sub-permit would terminate. However, the new watermaster would be required to comply with CESA by obtaining authorization from CDFG for incidental take of coho salmon. This

[12] Any subsequent watermaster who is not a DWR employee will be required to obtain a sub-permit.

authorization would likely be obtained through a sub-permit issued by CDFG under the Program similar to DWR's or through an ITP outside the Program.

References

Scott River Watershed Council, *Initial Phase of the Scott River Watershed Council Action Plan: Update*, Etna, CA, October, 2005.

Siskiyou County Resource Conservation District (SQRCD), *Incidental Take Permit Application for Coho Salmon*, submitted to California Department of Fish and Game, March 29, 2005.

State of California, Department of Fish and Game (CDFG*), Recovery Strategy for California Coho Salmon*, report to the Fish and Game Commission, February 4, 2004.